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S.N. 09/121,020
Exr E. Urban
GAU 2746

The United States of America

The Commissioner of Patents and Trademarks

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person or persons having title to this patent the right to exclude others from making, using or selling the invention throughout the United States of America for the term of seventeen years from the date of this patent, subject to the payment of maintenance fees as provided by law.

Bruce Lehman

Commissioner of Patents and Trademarks

Priscilla A. Fuller

Attest

US005535430A

United States Patent [19]

Aoki et al.

[11] Patent Number: 5,535,430

[45] Date of Patent: Jul. 9, 1996

,430

[54] **MOBILE COMMUNICATION TERMINAL EQUIPMENT USABLE FOR BOTH SATELLITE AND TERRESTRIAL COMMUNICATIONS**

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[21] Appl. No.: **208,707**

[22] Filed: **Mar. 11, 1994**

[30] **Foreign Application Priority Data**

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[51] **Int. Cl.**[6] **H04Q 7/32**

[52] **U.S. Cl.** **455/54.1**; 455/12.1; 455/62; 455/89; 379/59

[58] **Field of Search** 455/12.1, 33.1, 455/54.1, 56.1, 62, 89, 93, 84, 13.1; 379/58, 59

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Attorney, Agent, or Firm—Rothwell, Figg, Ernst & Kurz

[57] **ABSTRACT**

A mobile communication terminal equipment is mounted in a vehicle and can utilize both the satellite and terrestrial communication systems. The mobile communication terminal equipment includes a satellite transceiver and a portable set. The satellite transceiver has a satellite transmission/reception circuit. As required, the portable set is disconnected from the satellite transceiver to be carried by the user. The portable set includes a terrestrial transmission/reception circuit, a signal input/output circuit and a connection selecting switch. The connection selecting switch is automatically controlled to connect the signal input/output circuit selectively to one of the satellite and terrestrial transmission/reception circuits. When the satellite transmission/reception circuit is in connection with the signal input/output circuit, the communication through the satellite wireless communication system can be carried out. When the terrestrial transmission/reception circuit is connected to the signal input/output circuit, the communication through the terrestrial wireless communication system can be carried out.

18 Claims, 24 Drawing Sheets